

**Bond Markets in Latin
America: On the Verge of a
Big Bang?**

edited by Eduardo
Borensztein, Kevin Cowan,
Barry Eichengreen, and Ugo
Panizza

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The Fixed-Income Market in Uruguay

Julio de Brun, Néstor
Gandelman, Herman Kamil,
and Arturo C. Porzecanski

Capital markets in Uruguay have remained underdeveloped despite the growth and internationalization of its onshore and offshore banking industry following liberalization in the 1970s. Not even the development of a lively, liquid market for government securities has been able to nurture the parallel growth of a corporate bond market, and thus virtually all companies continue to rely mostly on financing from banks and suppliers rather than from the capital markets (de Brun, Gandelman, and Barbieri 2003). Certain laws passed in the mid-1990s specifically intended to promote the development of the local capital markets did boost the issuance of corporate debt, particularly on the part of banks. However, after some corporate defaults and near-default episodes took place in the late 1990s, the confidence of investors was shattered and the fledgling corporate bond market shriveled up.

In 2002, Uruguay suffered a profound financial crisis triggered by contagion effects from a depositor run on banks, massive currency devaluation, and large-scale default on sovereign debt that took place in next-door Argentina. In the wake of a run on its own exceedingly dollarized banking system, Uruguay's government was forced by the ensuing loss of international reserves to let the currency depreciate rapidly. The government subsequently had to provide support to state-owned financial institutions while intervening in several failing private sector banks, which involved obtaining massive financial backing from the Washington-based multilateral agencies. In addition, the government eventually had to arrange for a market-friendly restructuring of the public debt. The fallout of this crisis on the local capital markets was such that the volume of securities traded in its traditional and electronic exchanges collapsed. Starting in late 2003, however, the Uruguayan economy staged a vigorous recovery and the government regained access to domestic and international capital markets. In

contrast, the local equity and fixed-income markets have not revived, and there has been lingering damage to investor confidence in firms, regulators, auditors and credit-rating companies. Nonetheless, as we demonstrate, these are not the only impediments to the growth of the domestic fixed-income market.

Origins of the Fixed-Income Market

Between the 1930s and 1950s, Uruguay's economy grew strongly based on an import-substitution strategy made viable by booming international demand for its agricultural and livestock products during World War II and the Korean War. However, the potential for investment growth under this strategy was limited by the rise of agricultural protectionism in Europe and the United States, the small size of the domestic market, increasingly inflationary public financing, and the distortions generated by various forms of state interference. The Uruguayan economy thus experienced high inflation, massive currency depreciation, and economic stagnation between the mid-1950s and the mid-1970s, with grave social and political consequences.

The surge of domestic inflation in the 1950s eroded the value of the public debt issued up to the 1930s to finance the development of national and local public infrastructure. Moreover, as of the late 1950s an inflationary environment and weak tax structure (based primarily on export taxes and import tariffs applied to a shrinking base of foreign trade) closed the government's access to financial markets. Inflation-induced distortions in corporate financial statements further diminished the reliability and attractiveness of private sector securities, and turnover in the local stock exchange decreased steadily until the mid-1970s.

After stabilization policies and structural reforms were implemented starting in 1973, inflation decelerated and economic growth resumed, accompanied by an increase in foreign trade and private investment. Those reforms included tax structure modernization, trade liberalization, and full convertibility of the capital account of the balance of payments. Specifically, a value-added tax was introduced, nontariff barriers to trade were mostly eliminated, import tariffs were gradually reduced, interest rate caps became nonbinding, exchange-rate controls were abolished, and financial intermediaries' access to capital markets was liberalized.

Subsequent improvement in the fiscal situation allowed the government to return to financial markets, and it did so by issuing securities via the local stock exchange. Given the full convertibility of the Uruguayan peso, the government was able to issue long-term debt denominated in U.S. dollars (USD), which was accepted by domestic and regional investors eager to protect themselves from the ravages of inflation. It was thus through domestic issues of short- and medium-term (up to 8-year) government debt that the local capital market was given a new lease on life after the mid-1970s.

Indeed, the government's financing needs and liability-management operations have set the tone for most of the activity in local capital markets ever since the financial reforms of the 1970s. The debt crisis of the 1980s, for example, spurred the issuance of public debt in the domestic capital market as a substitute for the financing that was no longer forthcoming from foreign banks—the main source of new funds for the public sector during the second half of the 1970s. In the second half of the 1980s, short-term treasury bills represented a high and increasing share of the market for government debt. Starting in 1991 and following the successful debt restructuring under the Brady Plan, however, the government pursued a strategy of extending maturities including via the issuance of Eurobonds. This is reflected in the decreasing share of short-term debt during the 1990s all the way until 2001, when adverse developments in Argentina and then in Brazil scared investors—and bank depositors—away.

Recent Developments in the Government Bond Market

During the mid-1970s, when the domestic market for public debt began to develop, the Banco Central del Uruguay (BCU) acted as the government's financial agent, issuing securities through the Montevideo Stock Exchange (Bolsa de Valores de Montevideo, BVM), giving stockbrokers a premium on the face value of the securities. The bonds were usually issued at par, and they were distributed proportionally among shareholders. This practice was maintained until the early 1990s, when the BCU began to issue public debt through auctions on an over-the-counter (OTC) market.

Public debt instruments have been by far the most actively traded on the secondary market, in both the BVM and the Electronic Stock Exchange (Bolsa Electrónica de Valores, BEVSA). In fact, government

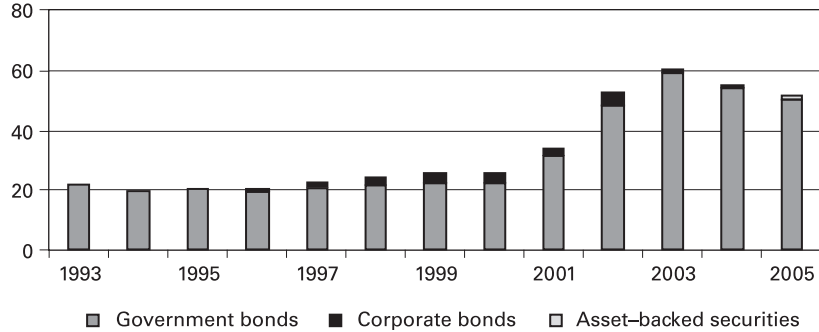


Figure 8.1
Fixed-income debt (percent of GDP).

securities have usually represented more than 90% of total transactions in the secondary market.

After the government gained access to international financial markets, bonds issued under foreign jurisdiction (mostly New York law) have been the main driver of transactions in local exchanges. This was especially true after 1998, when Uruguay obtained an investment-grade rating for its sovereign debt from all the leading credit-rating agencies. The participation of domestic end-investors in the secondary market for public debt issued overseas—particularly pension funds following a reform of the social security system—greatly stimulated turnover in years like 1998 and 2001.

The attractiveness of government securities issued abroad for participants in the secondary market has been their relatively higher liquidity, at least in comparison with securities issued domestically, which usually have lower amounts outstanding. This effect was markedly reinforced after the debt restructuring exercise of 2003, when many of the existing bonds submitted were exchanged under the “liquidity option” for three benchmark bonds, each of which qualified (because of its size) for inclusion in the J. P. Morgan Emerging Market Bond Index.¹

The financial crises of 2002 and the debt exchange of 2003 seem to have had enduring consequences for transactions on the domestic capital market. Not only are the amounts traded in both domestic and external bonds lower in recent years than those observed in 2001, but the composition of the instruments has also shifted toward shortened maturities. While in 2001 trading in domestic bonds amounted to US\$440 million and in short-term treasury bills a mere US\$32 million, in 2004 transactions involving domestic bonds dropped to US\$195 mil-

lion while trading in short-term securities increased to US\$270 million. Even though the successful, investor-friendly debt restructuring of 2003 has allowed the government to regain access to the domestic and international financial markets and sovereign spreads have compressed a great deal, the 2002–2003 experience has reinforced the traditional hold-to-maturity strategy of Uruguayan bondholders, reducing turnover in the secondary market and increasing the attractiveness of short-term instruments.

A visible characteristic of Uruguay's public debt is its extremely high degree of dollarization—now as well as before the 2003 debt restructuring. This long-standing willingness of the public sector to run a massive currency mismatch has had repercussions throughout the local financial system and remains one of its main sources of fragility (Licandro and Licandro 2003; de Brun and Licandro 2006). A critical step toward increasing the presence of domestic currency in the financial system and in capital markets is the development of a yield curve for sovereign instruments in domestic currency, which is to be used as a benchmark for the introduction of private sector securities likewise denominated in local currency, with the potential start of a market for derivative products.

Indeed, in recent years the government has been trying to pave the way for a financial market in peso-denominated instruments, featuring nominal, fixed-rate securities as well as inflation-adjusted debt. The issuance of debt instruments in pesos was kick-started when the BCU began to deal in short-term treasury bills in pesos for monetary policy purposes—and that issuance grew rapidly during 2003–2004, although the trend slowed down somewhat in 2005. Meanwhile, the introduction of inflation-adjusted instruments denominated in pesos got a boost from the international issue of Uruguay's first inflation-linked bond in October 2003 for an amount equivalent to US\$200 million (later expanded to US\$300 million). This was the first placement in the markets after the debt restructuring, and the first international issue of a Latin American sovereign bond denominated in local currency—a transaction emulated by Colombia and Brazil in 2004 and 2005, respectively. The catalytic effect of that international placement is reflected in the increased interest of domestic investors—and presumably foreign investors acting through domestic intermediaries—in local placements of UI bonds (where UI stands for *unidad indexada*, namely, debt indexed to consumer prices). Since late 2004, the real interest rate on UI bonds with 10-year maturities has fallen below 5% per annum.

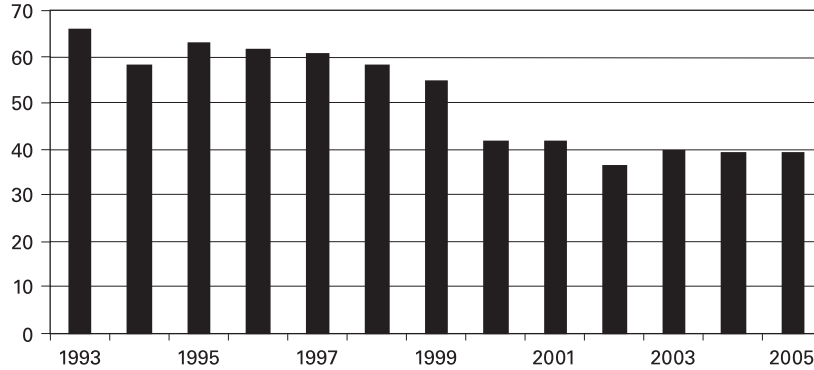


Figure 8.2
Government debt issued domestically (percent of total).

The successful placement of peso-denominated instruments on the local OTC and international markets generated increased participation of these securities in the local secondary market for public debt. Transactions involving government debt securities in pesos increased to 12% of total transactions in 2003 (from almost zero before that) and to above 20% in 2004 and 2005. The lesser impulse in the development of the secondary market for peso-denominated instruments in 2005 reflects the present government's strategy of emphasizing longer debt maturities, if need be via long-term, USD-denominated debt in local and foreign markets. Nevertheless, the larger amount outstanding of inflation-linked notes issued by the BCU and the government has helped to increase turnover in the secondary market from a mere 1.5% of public debt transactions in 2003 to 6% in 2004 and 15% in 2005.

Genesis of the Corporate Fixed-Income Market

During the 1990s, new legislation was enacted in an attempt to spur the development of a domestic capital market, particularly on the back of a deepening primary and secondary market for government securities. Many of the new rules were devoted to dealing with lingering issues of corporate transparency; the most important piece of legislation was the Securities Market Law of 1996. In addition to government backing, the law also enjoyed the strong support of interested parties, particularly stockbrokers trading on the BVM. The government explicitly sought to facilitate economic development through deepening financial access for Uruguayan firms, and stockbrokers welcomed the

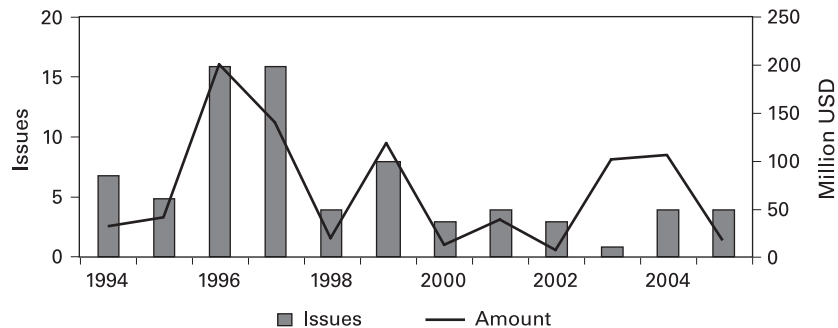


Figure 8.3
Corporate bond issues (excluding financial intermediaries).

idea because they foresaw greater turnover on domestic exchanges. For their part, local banks viewed securitization as a useful way of earning underwriting fees and reducing portfolio concentration risks. In fact, local banks have since acted as intermediaries in the public placement of corporate debt, with the main purpose of reducing their own exposure to particular corporate debtors.

In addition, financial intermediaries supported the new legislation because of its highly liberal regulatory and supervisory approach. Although the BCU's powers included the regulation and supervision of exchanges, issuers, and intermediaries, OTC transactions were explicitly excluded from the Securities Market Law provisions. The exchanges became in effect self-regulating, and this laxity played a role in some irregularities observed during the 2002 financial crisis. Subsequently, a December 2002 attempt by the BCU to include OTC transactions involving intermediaries in Securities Market Law regulations met strong opposition from interested parties, who successfully lobbied against congressional discussion of the BCU proposal.

Nonetheless, only a limited number of companies have tapped the markets for fresh capital since the Securities Market Law was passed, and in most cases they have issued bonds rather than equities. The issuance of new corporate bonds (excluding those of financial intermediaries) reached its peak in 1996–1997, when 16 different firms issued corporate debt in the form of *obligaciones negociables* (ONs) in each of those two years, raising nearly US\$200 million and US\$140 million, respectively (figure 8.3). Since that time, each year has brought no more than eight new corporate bond issues, and as few as one, and the total amounts raised have averaged less than US\$60 million per annum.

Virtually all bonds sold have been denominated in USD, and during 2000–2004 their maturity averaged a little more than four years. The financial crisis of 2002, which affected among others two of the largest private sector banks—both issuers of Eurobonds, no less—reinforced negative investor sentiment. A recent law for asset-backed securities (ABS, or *fideicomisos*) approved in 2003, however, has recognized a new type of private sector debt instrument that would seem to address most of the concerns of private investors. Firms now have the possibility of issuing securitized debt that is backed by specific cash flows or assets. Still, the development of an ABS market has so far been limited.²

In sum, Uruguay lacks a developed market for corporate obligations, and as detailed below, financing for companies still comes mainly from retained earnings, bank loans, and suppliers' credit. The primary market for corporate securities is currently dominated by the issuance of certificates of deposit issued by banking institutions, which have accounted for almost 80% of total primary issuance in recent years. The issuance of a first ABS by the state-owned electricity concern represented 11% of total issuance in 2004, while corporate bonds accounted for a mere 6% of primary-market activity. The secondary market, for its part, has become mainly a vehicle for transactions involving public debt instruments, which represented 94% of total turnover in 2004. The absence of state-related issuance in 2005 explains that year's sharp contraction of corporate bond activity in the primary market.

Corporate Governance Issues

In Uruguay, minority shareholders have generally fared very badly in business failures as majority owners have abused their rights, squeezing out minority players and forcing them to take heavy losses. A high-profile business failure that took place in the late 1990s, which later proved to be an organized swindle, led to new regulations requiring greater corporate transparency. However, more recent bankruptcies suggest that the problem is not solely one of lack of transparency, since "agency problems" may also be playing a significant role. Boards of directors in Uruguay are very much linked to the principal shareholders, and independent persons rarely serve on boards. In practice, managers who work for companies rather than boards of directors generally exercise decision-making authority. Additional features in-

clude the presence of integrated economic groups and the existence of financial links among related companies. The existing legislation on corporate structures (Law 16.060) includes some elements of protection for minority shareholders, but they are not sufficient to address present practices and circumstances.

The country also has in place detailed regulations on the operations of credit-rating agencies, an activity that has come under scrutiny in recent years because of a series of failures in the assessment of corporate creditworthiness, as seen in episodes of default during the 2002 crisis. Uruguay's experience with rating agencies does not greatly differ from that observed in other countries hit by systemic financial crises. As pointed out below in our summary of the institutional investor survey, the local market has come to accept the outcome of those default episodes, even though they damaged rating agencies' reputations.

The absence of a single depository agent and a less-than-adequate clearing and settlement process represents a further technical issue that introduces a high degree of risk into the operation of Uruguay's capital markets, the difficulty of measuring that impact notwithstanding (Clarke 2004). The BCU is the depository agent of securities included in the portfolios of the pension funds, as it is in general when it comes to government securities issued in the domestic market on a book-entry basis. However, there is no regulation in place concerning the custody of physical bonds or securities issued by other financial and nonfinancial corporations. Moreover, the compensation process takes place in the first instance in the corresponding exchanges, and after that net balances are settled bilaterally through the accounts that agents maintain at the BCU. Because no guarantees are demanded on credit lines of the different market operators, there is always a risk that the transaction will not be completed—as in fact happened in 2002 after four financial institutions were suspended.

Supply-Side Analysis: The Corporate Sector

Pioneering analytical work by Pascale (1978, 1982, 1994), and subsequently by Robledo (1994), was based on surveys conducted periodically by the BCU among dozens of companies engaged in manufacturing. However, the sample and the nature of the information gathered by these surveys during the 1970s, 1980s, and early 1990s changed so that the results are not entirely comparable over time. Nevertheless, the available data shows that manufacturing firms

in Uruguay tended to be highly indebted, even by the standards of developing countries. Ratios of corporate debt to assets averaged around 60% in the early 1970s and about 70% during the 1980s and early 1990s.

In terms of the maturity structure of these corporate obligations, the proportion of long-term debt tended to be low but rising over time, from less than 15% of total prior to 1980 to nearly 40% of total by the early 1990s. This ability to obtain longer-term funds may have been related to the sharply increased dollarization of liabilities over time: corporate debt in foreign currencies represented less than 20% of total liabilities until the mid-1970s but accounted for more than 60% by the early 1980s, averaging two-thirds of total during 1989–1991. As a result of this liability dollarization, most companies began to run large currency mismatches, since their sales were largely booked in local currency and their foreign-currency-denominated assets were small (e.g., 10% of total assets during 1982–1984). This exposed them to financial losses every time the exchange rate suffered a major depreciation—at least once a decade.

Banks have been by far the principal source of financing for manufacturing companies in Uruguay, with obligations to them representing more than half, and sometimes more than two-thirds, of total corporate liabilities. Access to a local bond market has never been a realistic option for most firms, except for the few years during the mid-1990s when new debt instruments such as the previously mentioned ONs became popular in the wake of new legislation, raising the amount of debt that firms could issue relative to their capital. However, nearly 70% of the securities traded were issued by private sector banks, and, as noted above, the market dried up in the late 1990s following the 1998 bankruptcy filing of one of the corporate issuers, the poultry firm Moro (Bentancor 1999).

Munyo (2005) found that 60% of corporate financing needs were met through borrowing (and therefore 40% from retained earnings), none of which included the issuance of equity or debt securities. Reliance on bank credit was on average as great as on trade credit, although larger companies with greater tangible assets tended to rely proportionally more on bank rather than trade financing and had greater access to long-term financing.

For the purposes of this study, we enlisted the collaboration of the National Statistics Institute (Instituto Nacional de Estadística, INE), which agreed to conduct a special survey during August and Septem-

Table 8.1
Summary Statistics for Firms Surveyed, 2004

Structure of liabilities (% of total)

	Bonds	Bank loans	Suppliers' credit	Other liabilities
Median	0.0	16.1	21.8	38.2
Mean	0.6	26.2	27.8	45.2
Standard deviation	4.5	28.0	24.2	33.8
Number of cases	453	452	453	451

Financial ratios

	Solvency	ROA	Leverage
Median	0.5	6.5	0.8
Mean	0.4	9.1	2.4
Standard deviation	0.9	81.7	9.9
Number of cases	459	457	459

Note: Solvency = equity/(equity + liabilities); ROA = net operating income/assets; Leverage = liabilities/equity.

Source: Authors' calculations based on INE survey.

ber of 2005 that targeted potential issuers of securities. The INE conducts an annual survey of economic activity that encompasses most sectors of the economy. Because the capital markets are not a real option for small firms, our sample includes all firms regularly surveyed by INE that have more than 50 employees. The response rate for 463 firms was 100%, which adequately covered most sectors.³ Given Uruguay's economic structure, the most important omission from the sample is that of individuals and firms engaged in activities such as farming and livestock.

Table 8.1 reports summary statistics on corporate finance patterns for the firms surveyed by INE in 2004. Consistent with Munyo's results discussed earlier, the two main sources of external funds for the surveyed firms were bank loans and suppliers' credit. Bond and equity financing, on the other hand, accounted for only a minuscule portion of total liabilities (0.8% for the average firm).⁴ Indeed, of the 463 firms in our sample, only 10 firms had outstanding bonds and only 9 firms (2%) were listed in the local stock exchange. This evidence reflects the stunted development of Uruguay's capital markets: while business ventures in Uruguay are usually organized as corporations, most of them remain closed.

Table 8.1 presents three oft-reported financial indicators. The solvency ratio is defined as the ratio of equity over the sum of equity and total liabilities. A second indicator is ROA (return on assets), defined as the ratio between net operating income before interest payments and total assets. The median ROA is 50% lower than the mean ROA, implying that the distribution of this statistic is heavily skewed to the left. Given the implicit risk present in investment projects taking place in Uruguay, a median ROA of 6.5% strikes us as somewhat low. As a rule of thumb, we could take this figure as the maximum interest rate that Uruguayan firms could afford to pay. The leverage indicator is defined as the ratio between total liabilities and total equity.⁵

Using data for 2004 from the INE survey, we can confirm that Uruguayan firms suffer from severe currency and maturity mismatches. For the median firm in the INE survey, 76% of its financial liabilities are denominated in US dollars. The INE survey included one specific question targeted to determine whether firms take any precautions with regard to their currency and maturity mismatches. Only 7% of firms used derivatives to change the profile of their liabilities, and thus most ran their foreign currency exposures largely unhedged.

In terms of maturity, 84.4% of the average firm's liabilities were short term. Although suppliers' credit generally had shorter maturities than bank credit, on average 77% of financial credit was nevertheless short term. These results confirm that Uruguayan firms have great difficulty in accessing long-term credit, even via the issuance of USD-denominated corporate bonds. Smaller firms tend to have even less access to long-term credit. The correlation of long-term liabilities with various measures of firm size (e.g., assets, equity, and employees) is positive and significant.

Uruguay's dollarization experience, as in the case of many other countries in Latin America and beyond, is the legacy of several decades of high and unstable rates of inflation, which eroded trust in the national currency as a store of value, a medium of exchange, and even a unit of account. In the absence of widespread indexation to inflation, economic agents became unwilling to enter into any medium-term contracts unless the payment amounts specified were protected from currency depreciation—and indirectly from the ravages of inflation—by being indexed to or expressed in USD. As a result, firms increasingly realized that any obligations to banks or suppliers not subject to correction for inflation or currency depreciation necessarily would be of a very short-term nature. Practically the only way to obtain

longer-term funds—other than through the issuance of equity stakes, of course—was to do so via contracts in USD, with the accompanying risks of a currency mismatch. For these reasons, between 90% and 100% of all corporate bonds issued during 1994–2004 were denominated in USD. Indeed, the currency and maturity composition of any obligation contemplated by borrowers or lenders came to be determined jointly as part of the same portfolio decision.⁶

Two key objectives of our research were to quantify the potential for financial stress arising from unhedged currency mismatches in firms' balance sheets and to determine whether firms issuing corporate debt were better prepared than others to withstand exchange rate shocks. The results indicate that Uruguayan firms remain vulnerable to a sudden currency devaluation, given high levels of unhedged, short-term foreign currency borrowing—liabilities in foreign currency that are not fully backed by assets or income streams in foreign currency. Furthermore, 93% of the firms without a natural hedge fail to purchase protection by engaging in any financial hedging. In this sense, there is no evidence that the corporate sector is more sheltered from exchange rate risk than it was on the eve of the 2002 crisis. Although these mismatches may not be a concern in the current external environment of low interest rates and a stable domestic currency, they may become a source of financial instability in future years, once international conditions become less benign.

To assess a firm's financial health, we used two criteria: the debt-service coverage ratio (the fraction of financial liabilities coming due in less than a year covered by cash flow); and the net-worth position of the firm (total assets minus total liabilities). For the purpose of the stress test, we defined a firm as financially stressed whenever an exchange-rate depreciation made it unable to meet its amortization and interest payments falling due (liquidity effect) and/or whenever it pushed the firm into a negative equity position (balance sheet effect). We thus assessed the effect that different exchange rate shocks could have on interest-coverage ratios and the proportion of firms that are at greater risk of defaulting. To assess the downside exchange rate risk of the corporate sector, we stress-tested the portfolio of each firm to a sudden 5%, 10%, 20%, 40%, 60%, 80%, or 100% increase in the peso price of USD (table 8.2).

Estimates on the contractionary effects of a sudden devaluation are conservative (i.e., they provide a lower bound) for four reasons. First, we only considered a sudden depreciation of the domestic currency,

Table 8.2
Systemic Effects of a Sudden Devaluation

If the price of the USD were to increase:	Number of firms under financial distress	Share of economy-wide:		
		Short-term supplier liabilities (effect on interfirm chain of payments)	Employment (effect on unemployment)	Total assets
5%	6	11%	1%	2%
10%	11	11%	2%	4%
20%	24	32%	12%	11%
40%	45	50%	15%	17%
60%	74	67%	21%	33%
80%	90	71%	26%	38%
100%	109	72%	29%	43%

If the price of the USD were to increase:	Share of economy-wide:		
	Total financial liabilities (credit risk effect on banking system)	Total dollar financial liabilities	Sales (growth and tax revenue effects)
5%	4%	4%	2%
10%	9%	11%	3%
20%	17%	20%	7%
40%	28%	33%	12%
60%	45%	54%	36%
80%	51%	61%	41%
100%	60%	71%	47%

Source: Authors' calculations based on INE survey.

excluding other simultaneous effects, such as an increase in interest rates or a recession, which typically accompany a depreciation. Second, to assess the vulnerability to foreign-currency borrowing, we only considered financial obligations, assuming that USD trade credit liabilities could be rolled over through negotiations with suppliers in the event of financial distress. Third, the exercise was static in nature in that we only considered the direct or first-round effect on each firm, excluding spillover or dynamic effects—a breakdown in the chain of payments among firms, for instance. Finally, we only considered firms that as of 2004 had an initially healthy financial position in order to avoid con-

taminating the results with data from weak firms that may be close to bankruptcy.

The results of the stress test show whether different scenarios featuring a significant depreciation of the peso would have a large effect on corporate capital and ability to service bank debt. For every possible static scenario, the number expressed in percentage terms represents the fraction accounted for by the group of distressed firms in the total value of each variable for the whole sample. The results suggest that Uruguayan firms still face the potential for financial stress arising from sizable and unhedged balance sheet currency mismatches—liabilities in foreign currency that are not fully backed by assets or income streams likewise in foreign currency. Moreover, we found no significant difference on simulated short-term responses across firms that issued bonds versus those that did not issue them.

The high proportion of financial liabilities accounted for by the pool of firms in distress suggests significant vulnerability of the banking system to corporate credit risk. For prudential reasons, bank balance sheets are protected from the direct impact of a devaluation, as their net assets in foreign currency adequately reflect the dollarization of both their assets and liabilities. Commercial banks, of course, are exposed to devaluation-induced credit risks from loans granted to non-USD earners or to firms with significant currency mismatches.⁷ Thus, the high proportion of unhedged foreign currency borrowing can render Uruguayan firms—and by extension, their bank creditors—highly vulnerable to a sharp increase in the cost of foreign exchange.

Survey of Potential Issuers: The INE Database

One of the hypotheses that we wanted to check was whether potential issuers lack knowledge about the prerequisites and feasibility of issuing corporate debt. We included a specific question allowing respondents to classify themselves as knowing enough, something or nothing about the use of bonds and ABS as financial sourcing alternatives. Although this survey targeted the CFOs (or equivalent) of firms, only about one quarter of respondents reported to have a good knowledge of bonds and ABS.

Another aspect is the decision process of many firms that, though organized as corporations, tend to follow the traditional family-business structure. In spite of what will be presented in the following

paragraphs, this conservative structure may prevent managers from considering financing alternatives that could make proprietary information public. The reluctance of surveyed firms to use nontraditional financial instruments is quite notable: only 13 firms (7%) in the whole sample reported that they had used derivative instruments to manage or change the profile of their liabilities.

Of the 463 firms in our sample, 10 firms had outstanding bonds and 21 report having issued ABS. Approximately the same number of firms had in the past issued bonds and ABS, and—at least according to firms' future plans as revealed in this survey—one should not expect many new issuers in the future. Of those firms that used to issue bonds in the past and no longer do so, 12 firms reported specific reasons for stopping. There is no one reason that clearly predominates over others: high costs of issuance were reported 3 times; high interest rates were mentioned 2 times; low investor demand was reported 4 times; other issuance requirements were mentioned twice; and bad reputation of the firm was admitted twice.

Uruguayan firms have two main sources of external funds: bank loans and suppliers' credit. Naturally, most bank financing is provided by financial institutions located in-country: about 300 firms report that they obtain credit from local banks, and only 20 firms report having access to credit from banks abroad. More than 90% of the sample was able to evaluate whether collateral requirements, bank monitoring, slow approval processes, high interest rates in pesos, or access to credit only in USD affected access to bank credit from institutions operating in Uruguay. On the other hand, only 40% of firms were able to evaluate these factors with respect to banks located outside Uruguay.

In spite of the currency mismatches of Uruguayan firms mentioned above, availability of credit only in USD is not considered a problem *per se*. According to the results of this survey, the problem is not the availability of peso-denominated loans, but rather their relatively high cost. Other important problems include collateral requirements and, to a lesser extent, the speed of loan approval and disbursement. Interestingly, 45% of respondents have the perception that local banks are not willing to lend. This contradicts the view of banks according to our survey of market makers (see next section), where they stress their willingness to lend but voice concerns regarding the high risks involved in financing local firms.

As in the case of banking obstacles, the survey found that replies on the factors affecting issuance of bonds outside Uruguay were much

fewer than replies on the issuance of corporate debt in Uruguay. Moreover, the response rate for bond financing was smaller than the response rate for bank financing, revealing a lesser degree of familiarity with the subject. Overall, half of the surveyed firms provided feedback on the factors affecting the issuance of bonds in Uruguay and only 26% spoke upon the factors affecting the issuance of bonds abroad. The potential obstacles mentioned were underwriters' fees, credit-rating agencies' fees, disclosure requirements, minimum issue requirements, the small size of the market, the absence of "junk bonds" and other regulatory requirements.

There are notable similarities in the problems associated with most factors for bonds issued in Uruguay and abroad; the only significant difference is with respect to market size—perceived to be small in Uruguay but not abroad. Moreover, this is the factor most often mentioned as a problem in terms of issuing bonds domestically (62%). This lack of perceived investor demand again stands in contrast with the results of the institutional investors' survey. (Institutional investors reported their willingness to invest in corporate debt but expressed the view that there were no worthwhile projects to be underwritten.) This contradiction may in part be solved by the fact that the second-most-reported problem is the nonexistence of a market for low-rated, speculative bonds (55% and 52% for bonds issues domestically and abroad, respectively). The fees charged by credit-rating agencies are also considered an obstacle by about 49% of respondents.

About 47% of respondents considered disclosure requirements to be something that discourages the issuance of bonds domestically. In our questionnaire, we added an extra question to assess the willingness of firms to disclose information. The question was: "Are you willing to disclose the necessary information in order to be rated by a credit agency as a preliminary step to an eventual issuance of bonds?" Of the total respondents, 33% were willing to disclose information; 31% said they were probably willing to do so; and only 36% of respondents had a negative inclination toward information disclosure (answering "No, probably" and "No, for sure"). Most firms do not consider the other factors as important impediments to issuing bonds. In particular, this is true with respect to underwriters' fees, minimum issue requirements, and disclosure requirements.

In evaluating the obstacles to obtaining financing in Uruguay through the banking system or through the issuance of corporate debt, we again had very different response rates. More than 90% of

Table 8.3
Best Financing Alternatives

	Uruguay		Outside Uruguay		Suppliers' credit
	Banks	Bonds	Banks	Bonds	
Interest rate cost	12	2	3	15	68
Local-currency lending	29	1	0	14	56
Indexation alternatives	29	6	1	11	53
Long-term lending	42	20	12	10	15
Non-interest rate costs	9	2	2	14	72
Tax treatment	19	7	2	14	58
Possibility of renegotiation	9	1	1	21	68
Costs related to disclosure requirements	8	1	1	13	77
Size of potential market relative to firm's financing needs	31	6	9	16	38

Source: Authors' calculations based on INE survey.

respondents were able to discuss access to bank credit, while only 46% were able to comment on bond financing. In comparative terms, banks were viewed more positively with respect to speed of access to the required financing and in terms of the information requirements involved. Also, the relatively high minimum amount required to make a bond issuance worthwhile was considered a disadvantage. On the other hand, bonds were viewed more favorably in terms of the possibility of accessing longer-term funds and with respect to guarantee requirements, though the latter were considered an important obstacle in both alternatives. The most frequent complaint was the cost of borrowed capital, and the least common was again information requirements.

We asked firms to consider five financing alternatives: banks in Uruguay or abroad, issuance of bonds in Uruguay or abroad, and suppliers' credit from any source (table 8.3). Suppliers' credit was perceived as by far the best alternative in almost all dimensions. In fact, long-term lending and the size of loans with respect to the firm's financing needs are the only two aspects in which suppliers' credit does not clearly dominate the other financial alternatives. With respect to long-term lending, the preferred option is credit from a Uruguayan bank. It is surprising that in our sample only 34% of bank credit is long term, as many firms have ongoing relations with banks and are constantly renewing short-term credits. Therefore, although these credits are

Table 8.4
Costs of a Plain-Vanilla Domestic Bond Issue

	Face value issued (thousand USD)				
	1,500	3,000	10,000	20,000	50,000
Underwriting fees (1%)	15,000	30,000	100,000	200,000	500,000
Arranger fees (0.75%)	11,250	22,500	75,000	150,000	375,000
Distribution costs	22,500	45,000	150,000	300,000	500,000
Legal fees	5,000	5,000	8,000	8,000	10,000
Stock exchange registration ¹	3,000	6,000	15,000	20,000	40,000
Rating agency	10,000	10,000	12,000	12,000	15,000
Total costs	66,750	118,500	360,000	690,000	1,440,000
Issue size (%)	4.45%	3.95%	3.60%	3.45%	2.88%
Brazil			n/a	4.20%	2.78%
Chile			4.76%	4.20%	2.85%
Mexico			n/a	1.99%	1.58%

¹ Assuming registration in both bourses.

Source: Authors' calculations, and Zervos (2004) for Brazil, Chile, and Mexico.

nominally short term, they may be perceived as a long-term financing alternative on the assumption that they can be rolled over. Naturally, the risk exposure of firms to sudden credit crunches is enormous.

We applied the methodology of Zervos (2004) to address the costs of issuing debt in the Uruguayan corporate bond market. These costs only apply to the private sector, since the government issues debt in the domestic market at no cost. Among the main costs detected are bank fees, the most important being underwriting fees.⁸ The range is wide, depending on the complexity of the issue and the characteristics of the issuer. They usually vary between 0.5% and 1.5% of the issue amount, with "plain-vanilla" corporate bonds issued by well-established firms at the lower bound and more sophisticated financial structures, like ABS, at the upper bound (table 8.4).

The arrangement costs of the issue can be charged to the issuer by the intervening bank or any other financial advisor. According to the interview results, they are usually close to 0.75%, while distribution costs have a range of 0.75–1.50%. Another important cost related to the issue comes from legal fees associated with the preparation of a legal document, usually accompanied by a prospectus and an offering memorandum. These costs are more difficult to estimate, but according to information provided by local issuers, they range between US\$5,000 and 10,000.

In the case of Uruguay, no regulatory fees apply. The two exchanges (BVM and BEVSA) apply registration fees that vary from 0.04% to 0.10%, depending on the size of the issue. The higher fee applies to issues less than US\$1.5 million while the lower is charged for issues higher than US\$20 million. The Uruguayan regulatory agency does require at least one credit rating for all issuers. The fees charged by credit rating agencies usually vary from US\$10,000 to US\$15,000, and there are other costs charged during the life of the bond. For instance, a fiduciary agent, when needed, usually applies annual fees of 0.15–0.25%; the exchanges charge, besides the initial registration cost, an annual maintenance fee of 0.005–0.020%. Credit rating agencies also apply annual fees, usually around 10% of the initial fee.

For an issue of US\$20 million, the costs in Uruguay (3.45%) compare reasonably well with those in Chile and Brazil (both 4.20%) but are much higher than in Mexico (1.99%). Problems arise when the costs are adjusted for maturity. Until recently, the maturity of Uruguayan corporate bonds was very short, and thus the impact of issuance costs was quite significant in the overall decision. For instance, a 3% issuance cost is equivalent to an increase of 76 basis points (bps) in the interest rate for a 4-year bond, while it only adds 30 bps to the cost of a 10-year bond.

Demand-Side Analysis: Institutional Investors

The principal institutional investors in Uruguay's capital market are the pension funds (AFAPs) created after the 1996 reform of the country's social security system. These funds are managed by four companies: the state-owned República AFAP and the three asset managers—Afinidad AFAP, Integración AFAP, and Unión Capital AFAP—that are owned by private sector banks operating in Uruguay.

Pension fund investments are highly regulated in terms of types of securities, currency denomination, and jurisdiction, which leads to numerous restrictions on their portfolio allocation (figure 8.4). Pension funds are not allowed to make any investments outside Uruguay, and investments in foreign currencies cannot exceed 60% of the portfolio's value. The same limit applies to securities issued by the central government. Likewise, securities issued by the state-owned mortgage bank (Banco Hipotecario del Uruguay, BHU) and the BCU itself may not exceed 30% of pension fund assets. Pension fund time deposits in financial institutions must be represented by certificates of deposit and

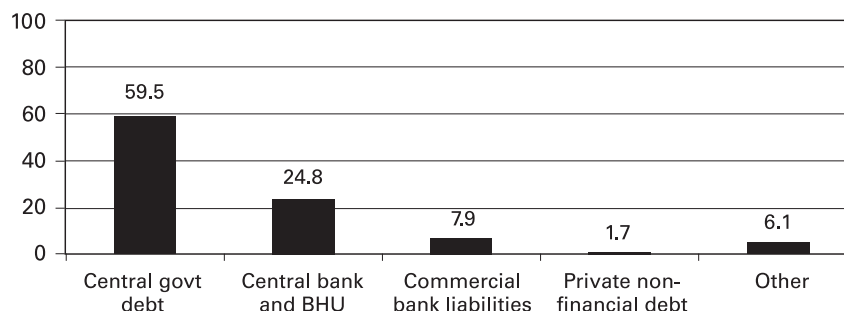


Figure 8.4

Pension funds' portfolio investments (percent of total assets as of December 2005).

cannot exceed 30% of assets; securities issued by private sector corporations are constrained by a 25% limit. In addition, the BCU does not allow securities issued by any particular company to amount to more than 3% of total assets or to constitute more than 50% of the amount outstanding of each security. This limit applies to both corporate bonds and stocks. Asset-backed securities may not amount to more than 20% of pension fund assets and are likewise constrained by the 3% ceiling on any given issuer; this applies to both so-called certificates representative of investments (CRIs) and to financial trusts (*fideicomisos financieros*). Exposure to beneficiaries of the pension system is limited to 15% of pension assets, and the latter three exposures cannot exceed a combined total of 40% of total pension assets.

At present, pension fund holdings of sovereign debt are close to the current ceiling imposed by law: at the end of 2005, 59.5% of the value of the portfolio of the pension funds was allocated to securities issued by the Uruguayan central government (figure 8.4). The pension funds are also heavily invested in securities issued by the monetary authority, with a concentration in newly issued inflation-linked securities, which represent more than 20% of the total portfolio. The sum of holdings of securities issued by the BCU and the BHU (24.8% of total assets) are nonetheless below the maximum of 30% established by law.

In contrast, pension fund exposures to nonfinancial, private sector instruments are well below the limits: corporate bonds, stocks, CRIs, and financial trusts combined represented a mere 3.4% of total assets as of end-2005. Interestingly, the aggregate cash position of the four pension funds was as large as their holdings of private sector securities

issued by nonfinancial enterprises. Given their relatively recent vintage, most of their liabilities are long-term in nature.

Pension funds have contributed greatly to the development of a market for peso-denominated instruments, at least through their participation in the primary market for debt. Prior to the financial crisis of 2002, the holdings of peso-denominated instruments represented around one-fourth of the total portfolio of the pension funds. The crisis induced a run from domestic currency, however, and instruments in pesos decreased to less than 5% of the value of pension assets by mid-2002. The country's economic and financial stabilization has since supported a rebound in demand for peso instruments, and by mid-2006 their share in pension funds had jumped to 56.3% of total assets, mostly in the form of inflation-linked securities.

With the cooperation of BEVSA, we carried out a survey among the 4 pension fund managers and the 14 banks authorized by the BCU and also surveyed the 35 stockbrokers registered at the BVM. We received answers from 12 banks and 16 stockbrokers, encountering strong resistance among the latter for "confidentiality" reasons.

As the figures on the composition of the pension funds suggest, the legal constraints imposed on their capacity to invest in private sector, nonfinancial issuers are not binding. Not only is the allocation of resources to these instruments well below the extreme bounds allowed by legislation, but recent history also shows that new funds arising from contributions to the pension system and the reduction of cash holdings have been invested in other investments—basically, CDs issued by banking institutions.

According to the survey made among the pension funds, managers feel that the regulations imposed by law and the regulatory agency (the BCU) are especially binding with respect to their ability to invest abroad. Indeed, when pension fund managers are asked how they would allocate their assets if they did not face any regulatory constraints, they consistently point to a desired increase in the share of foreign assets in their portfolios. As can be expected from the behavior revealed in the composition of the portfolios, no binding legal restrictions are emphasized on the side of their ability to invest in the securities of private sector, nonfinancial firms.

The survey reveals a perception of high risk entailed in investments in corporate bonds. Among the factors affecting the decision to invest in those instruments, the answer to the criterion "high risk of insolvency" was "Yes" in all the answers obtained. In three of the four

cases, the criterion “limited legal recourse in the event of default” was considered relevant as well. This perception may be based on the recent history of defaults involving issuers of corporate bonds.

The availability of information does not seem to be a limiting factor in the demand for corporate bonds. Only one of the four managers answered “Yes” to the criterion “lack of timely information about the issuer,” suggesting that default risks are viewed as related more to sudden changes in the macroeconomic environment than to lack of appropriate information on the issuer. Similarly, only one manager considered the credit rating system to be of “low quality” or too costly—the same single manager that pointed to inadequate information about issuers. In sum, pension fund managers are far more concerned about the vulnerability of Uruguayan companies to macroeconomic shocks and the difficulties of enforcing creditor rights in the event of a default than they are about the lack of adequate information on issuers.

All the managers of pension funds surveyed considered “low market capitalization” a limiting factor, but the absence of a deep secondary market does not seem to be relevant for the decision to invest in corporate bonds. In three of the four cases, the answer to concerns about “low liquidity/poor functioning of the secondary market” was “No,” revealing that pension funds generally behave as hold-to-maturity investors.

When fund managers are asked about the allocation of additional funds in their portfolio, they say they would like to reduce the share of government securities in their portfolios (except in one case) and to increase the participation of domestic private sector securities and foreign assets. Asked about the apparent contradiction of being ready to increase investments in domestic corporate bonds in a context where they can do this already, managers say that any marginal availability of funds would likely be directed to CDs issued by banks.

The evidence on the perception of either a “crowding-out” effect or a positive externality effect between government and corporate bonds is mixed. The reaction to the statement “A large stock of government bonds is important for the development of the corporate bond market” is tilted to “disagreement,” suggesting that, from the point of view of the pension funds, the underdevelopment of the capital market is not a constraint on allocating resources to private sector projects. At the same time, the statement “Government and corporate bonds are substitutes in your portfolio” had a reaction also tilted to disagreement.

The apparent contradiction with the expectation that government debt will serve as a benchmark for capital market development, facilitating issuance by private sector firms once transactions costs are reduced, can be explained by the special characteristics of pension funds as institutional investors. As noted above, pension funds in Uruguay seem to behave as hold-to-maturity investors. They are therefore mostly concerned with adequate assumption of risk through appropriate design of financial instruments and with access to the primary market, rather than with the extent of liquidity in the secondary market or the eventual impact of public debt on returns on private sector securities. This explanation is consistent with the good reception among pension funds of some ABS deals issued recently; in fact, in some instances these instruments were placed solely among pension funds. A feature shared by those successful placements was appropriate contract design aimed at facilitating the recovery of the investment in case of default.

Besides the pension funds, there are other institutional investors involved in the management of sector-specific pension systems, such as those funds serving self-employed professionals and bank employees. Given that those other pension systems also have some participation in the Uruguayan capital market, we extended the survey to cover these secondary pension funds as well.

As in the case of the pension funds considered above, government securities represent most of the portfolios managed by these institutional investors. Like the main pension fund managers, these smaller pensions are concerned with "high insolvency risk" on the part of corporate bond issuers. In contrast to the larger funds, however, they are more consistently concerned with problems of appropriate information on issuers—including the role of credit-rating agencies and the reliability of their judgments—and with the extent of liquidity in the secondary market, perhaps because these funds are much older and their portfolio managers put a higher premium on liquidity considerations. All the investors surveyed considered important problems such as "low market capitalization" and "low liquidity/functioning of the secondary market." And as in the case of the managers of the main pension funds, there was no clear consensus about the role of government debt in the development of the capital market.

Given the absence of a great variety of institutional investors and the important presence of retail investors in the Uruguayan capital market, we considered it useful to extend the survey to include some important

market makers, such as banks and stockbrokers, whose opinions are also influential in the investment decision of their customers.

There are no significant differences between the opinions of market makers and those of other institutional investors. Among the banks that provided information on the composition of their portfolios (nine of twelve reported their own and third-party positions), only two (of nine) reported a significant (around 10%) share of corporate bonds. In the rest, the share was almost zero. There is much more dispersion in the case of stockbrokers, among which the share of corporate debt in their customers portfolios ranges from zero to almost one third. There are in fact many coincidences in terms of risk-return considerations regarding limitations on investing in corporate bonds. The perception is that returns are often too low given the default risks involved, or that default risks are unacceptably high given the returns available.

The concerns of stockbrokers are biased toward insolvency risks rather than high returns, and 70% of stockbrokers in the sample do not list "low returns" as a relevant consideration. This outcome suggests low demand for "junk" bonds among Uruguayan investors, given that investment in corporate bonds is mostly led by diversification objectives rather than by the search for high yields. As in the case of other institutional investors, there are more concerns about liquidity in the secondary market than in the case of the main pension funds, though opinions among brokers are more mixed. This finding is complemented by a generalized view that "low market capitalization" is a determinant factor in discouraging investment in corporate debt.

However, in contrast to other financial intermediaries, there is a great deal of dispersion in reactions to the eventual lack of good quality in the services provided by credit-rating agencies, but most of the banks and stockbrokers surveyed agree that the "lack of timely information about the issuer" discourages investments in private sector corporate bonds. When financial intermediaries other than stockbrokers were asked about the allocation of increased resources, they offered a particularly negative view of corporate debt. In fact, only one of twelve banks showed a consistent interest in augmenting the share of corporate debt under this scenario. The majority of stockbrokers said they would maintain the present share of corporate debt in their suggested portfolios (given that there are no supply restrictions), and some would even increase their share of corporate bonds. In explaining the different views of stockbrokers and banks, it must be taken into

account that these market participants have a pecuniary incentive to defend the development of financial instruments other than government debt.

Conclusions

Uruguayan capital markets have functioned well in terms of allowing for secondary-market transactions of government debt, but they remain notably undeveloped in regard to fixed-income securities issued by the private sector. After a short period of encouraging growth in the mid-1990s, the market for corporate bonds shriveled up prior to the 2002 economic crisis. The financial fragility of Uruguayan firms, made obvious during that crisis and amplified by preexisting deficiencies in corporate governance, represents the main reason for this stunted development.

A lingering result of government macroeconomic mismanagement during the 1960s and 1970s is that Uruguay became the most dollarized country in Latin America as well as the market where corporate debt has featured the shortest average maturities. This situation has generated currency and maturity mismatches that have exposed the country's firms—most of which are not export-oriented—to dangerous currency and refinancing risks. Although some regulatory deficiencies remain, they cannot account for the extent of underdevelopment in the financial markets. Instead, the leading reasons for this underdevelopment are the vulnerability of the country and its firms to macroeconomic shocks as well as practical obstacles in the enforcement of creditor rights in cases of default.

Potential corporate debt issuers say they are willing to disclose the information necessary to obtain a credit rating in order to access the fixed-income market, but the legacy of errors in judgment by rating agencies and the legacy of past fraud and default episodes still lingers, inducing great caution among potential investors. Moreover, there is a surprisingly low level of sophistication among corporate managers about alternatives to borrowing from traditional sources such as banks and suppliers.

Currently, the only actively traded issues in the market are those sold by the government and its state-owned companies. Since there was no political consensus in favor of privatizations during the 1990s, local capital markets lack the kind of liquid, widely held corporate debt and equity benchmarks that jump-started the financial markets of

so many other Latin American countries. The granting of further concessions and the establishment of joint ventures between state-owned and private companies could lead to additional debt issuance in the markets. Until then, we expect that those few firms that have maintained a good reputation, and have been successful in raising funds from the capital markets, will be the main ones continuing to do so. The arrival of asset-backed transactions may allow investors to overcome financial fragility and corporate governance concerns, allowing new issuers to arise, but the small size of typical firms makes it difficult to find assets or claims on future income streams large enough to make ABS issuance worthwhile.

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Notes

1. The Uruguayan debt exchange of 2003 gave bondholders two choices: (a) under the "extension option," an existing bond could be exchanged for a new one with same principal, currency and coupon, but with an extended maturity (5 years, on average); (b) under the "liquidity option," existing bonds could be exchanged for so-called benchmark bonds, under which many small bonds could be aggregated. There were benchmark bonds both in the international and the local debt exchange transactions, but the size of the domestic benchmarks was much lower than the international ones.
2. Realistically, it takes time for the introduction of new financial instruments in an emerging market lacking expertise in the management of these more sophisticated products. In the case of Chile, their securitization law was passed in 1994, but the first securitized bond was issued there in 1996, and the market for this kind of instrument took off only in 1999.
3. Because INE was responsible for the field survey, this made answering the survey a legal obligation, and firms risked being fined if they failed to comply.
4. The main component of the "Other liabilities" column in table 8.1 is internally generated funds, with securities accounting for a very small fraction of total liabilities.

5. In de Brun et al. (2007) we present a more detailed analysis of the financial structure of Uruguayan firms, differentiating publicly traded from non-publicly traded companies and how their financial structure changed before and after the 2002 crisis.
6. There is some evidence of a systematic relationship between the two key dimensions of a firm's financial structure: the maturity structure of its total liabilities, measured as the fraction of long-term debt in total debt, and its degree of liability dollarization, measured as the percentage of total liabilities that are denominated in, or indexed to, USD. Kamil (2004) reports a statistically significant correlation coefficient between the maturity of corporate debt and its dollarization of 0.35. This empirical evidence suggests that the observed dollarization of liabilities may well be motivated by a desire to extend the maturity structure of obligations—and not necessarily by a given currency preference.
7. This is especially true in the case of Uruguay where most domestic foreign-currency deposits are offset by domestic foreign-currency loans and not by assets held abroad. The banking sector's net foreign asset position is generally positive but close to balance.
8. In fact, it is not strictly necessary to have a bank as underwriter or even an underwriter of any kind. The firms that have a well-established reputation as issuers usually do not pay underwriter fees. In some cases, the stockbroker assumes the role of underwriter, and their fees are similar to those of the bank.

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